

IN THE CLAIMS

1-7. (cancelled)

8. (currently amended) A spinal fixation system for implant of elongate support means medially of the spine in place of removed portions of spinous processes and comprising:

a plurality of pedicle screws spaced apart in two columns for fixation in bone on both sides of the spine, said pedicle screws each having a multi-axial head and a stem, each said head having two branches defining a channel;

a longitudinal support extending along a path between said columns;

cross supports, each said cross support having two ends, one of said ends being attached to seated in a channel of a head of one of said pedicle screws in the one of said columns and the other of said ends being attached to seated in a channel of a head of one of said pedicle screws in the other of said columns; and

a mounting bracket attached midway between said ends to each of said cross supports and connected to said longitudinal support;

wherein said mounting bracket is separate from at least one of said cross supports.

9. (cancelled)

10. (previously presented) The system of claim 8 and wherein:

said mounting brackets have yokes receiving said longitudinal support.

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11. (previously presented) The support system of claim 8 and wherein:
the longitudinal support is a spinal rod.

12-40. (cancelled)

41. (currently amended) A spinal fixation system for implant of elongate support means medially of the spine in place of removed portions of spinous processes, said system comprising:
at least four pedicle screws spaced apart in two columns for fixation in bone on both sides of the spine, said pedicle screws each having a multi-axial head and a stem, each said head having two branches defining a channel;
at least one mounting piece;
an a first arm seated in a channel of a head of connected at one end to a first of said
pedicle screws and to a mounting piece;
an a second arm seated in a channel of a head of connected at one end to a second of said
pedicle screws and to a mounting piece; and
a longitudinal support extending along a path between said columns and connected to
said at least one mounting piece,
wherein at least a portion of said first arm connected to said first of said pedicle screws
and at least a portion of said second arm connected to said second of said pedicle screws are at
least one of coplanar in a plane substantially non-parallel to said longitudinal support and
coaxial, and
wherein said at least one mounting piece is separate from at least one of said arms.

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42. (currently amended) A spinal fixation system for implant of elongate support means medially of the spine in place of removed portions of spinous processes, said system comprising:

at least four pedicle screws spaced apart in two columns for fixation in bone on both sides of the spine, said pedicle screws each having a multi-axial head and a stem, each said head having two branches defining a channel;

at least one mounting piece;

~~an a first arm seated in a channel of a head of connected at one end to a first of said~~

pedicle screws and to a mounting piece;

~~an a second arm seated in a channel of a head of connected at one end to a second of said~~

pedicle screws and to a mounting piece; and

a longitudinal support extending along a path between said columns and connected to said at least one mounting piece,

wherein at least a portion of said ~~first arm connected to said first of said pedicle screws~~ and at least a portion of said ~~second arm connected to said second of said pedicle screws~~ are at least one of coplanar in a plane substantially non-parallel to said longitudinal support and coaxial, and

wherein said arm connected to said first of said pedicle screws and said arm connected to said second of said pedicle screws are part of a single arm.

43-44. (cancelled)

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45. (previously presented) The apparatus of claim 41, wherein said mounting piece is substantially at least part-circular with a hole therethrough for accommodating said longitudinal support.

46. (previously presented) The apparatus of claim 42, wherein said mounting piece is substantially U-shaped with a channel for accommodating said longitudinal support.

47. (previously presented) The apparatus of claim 41, wherein at least two of said pedicle screws have a medialized orientation.

48. (previously presented) The apparatus of claim 42 wherein said longitudinal support is a single piece.

49-50. (cancelled)

51. (currently amended) A spinal fixation system for implant of elongate support means medially of the spine in place of removed portions of spinous processes and comprising:

a plurality of pedicle screws spaced apart in two columns for fixation in bone on both sides of the spine, said pedicle screws each having a multi-axial head and a stem, each said head having two branches defining a channel;

a longitudinal support extending along a path between said columns;

cross supports, each said cross support having two ends, one of said ends being attached to seated in a channel of a head of a first pedicle screw in the one of said columns and the other

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of said ends being attached to seated in a channel of a head of a second pedicle screw in the other of said columns; and

a mounting bracket attached midway between said ends to each of said cross supports and connected to said longitudinal support,

wherein said cross support connected to said first pedicle screw and said cross support connected to said second pedicle screw are part of a single arm.

52. (previously presented) The system of claim 51 and wherein:

at least one of said first and second pedicle screws has a multi-axial cross support receiver locked to one of said ends of at least one of said cross supports.

53. (previously presented) The system of claim 51 and wherein:

said mounting brackets have yokes receiving said longitudinal support member.

54. (previously presented) The support system of claim 51 and wherein:

the longitudinal support is a spinal rod.

55. (previously presented) The system of claim 41 and wherein:

at least one of said first and second pedicle screws has a multi-axial arm receiver locked to one of said ends of at least one of said arms.

56. (previously presented) The system of claim 41 and wherein:

said mounting piece has a yoke receiving said longitudinal support.

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57. (previously presented) The support system of claim 41 and wherein:
the longitudinal support is a spinal rod.

58. (previously presented) The system of claim 42 and wherein:
at least one of said first and second pedicle screws has a multi-axial arm receiver locked
to one of said ends of at least one of said arms.

59. (previously presented) The system of claim 42 and wherein:
said mounting piece has a yoke receiving said longitudinal support.

60. (previously presented) The support system of claim 42 and wherein:
the longitudinal support is a spinal rod.

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